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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,880	09/16/2003	Eric S. Fetzer	10971265-3	3106

22879 7590 08/11/2004

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FORT COLLINS, CO 80527-2400

EXAMINER

HOM, SHICK C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/663,880	Applicant(s) FETZER ET AL.	
	Examiner Shick C Horn	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/16/03 & 12/24/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-13, 15-17, 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 14, 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/24/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In page 2 of the preliminary amendment to the specification line 6 after the words "February 21, 2000," insert ---now U.S. Patent No. 6,707,831,---. Appropriate correction is required.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

3. Figures 2, 4, 7, 8A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. In Remarks II of page 6 of the preliminary amendment of 9/16/03 applicant indicated that the label "PRIOR ART" have been added to these drawings; however no re-labeled Figs. are found in the file. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR

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1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

4. Applicant's arguments with respect to claims 1-5, 14, and 18 have been considered but are moot in view of the new ground(s) of rejection.

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van*

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Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-5, 14, and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,707,831. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application's claim 1 merely broaden the scope of the U.S. Patent No. 6,707,831 claim 1 by eliminating the first latch, the second latch, and the first functional unit as in claim 1. The application's

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claim 2 merely broaden the scope of U.S. Patent No. 6,707,831 claim 1 by eliminating the first functional unit as in claim 1. The application's claim 3 merely broaden the scope of U.S. Patent No. 6,707,831 claim 1 by eliminating the limitation that the control circuit determines whether the output from the first bi-directional OR controller is sent across the register file to the second bi-direction OR controller as in claim 1. The application's claim 4 merely broaden the scope of U.S. Patent No. 6,707,831 claims 1-2 by eliminating the limitation that the control circuit determines whether the output from the first bi-directional OR controller is sent across the register file to the second bi-direction OR controller as in claim 1. The application's claim 5 merely broaden the scope of U.S. Patent No. 6,707,831 claims 1-3 by eliminating the limitation that the control circuit determines whether the output from the first bi-directional OR controller is sent across the register file to the second bi-direction OR controller as in claim 1. Application's claim 14 merely broaden the scope of U.S. Patent No. 6,707,831 claim 11 by eliminating the second conditioned select signal, the OR gate, the invertor, the NAND gate and the second NAND input connected to the second

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raw select signal input as in claim 11. Likewise, application's claim 18 merely broaden the scope of U.S. Patent No. 6,707,831 claim 14 by eliminating the first NAND gate, the first and second OR gates, and the inverter as recited in claim 14. It has been held that the omission of a element and its function is an obvious expedient if the remaining elements perform the same function as before. In re Karlson, 136 USPQ (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (Bd. App. 1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Crocker (5,773,995).

Regarding claim 14:

Crocker discloses the encoded multiplexer (see col. 1 lines 4-6 and col. 5 lines 1-14) comprising: a first input

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with at least one instance; a second input with at least one instance (see col. 4 lines 56-67 where the recited input data signals IN0 and IN1 read on the first and second inputs); a first row select signal with at least one instance; a second row select signal with at least one instance (see col. 4 lines 56-67 where the recited selection signals read on the first and second row select signal); and a circuit which combines said first row select signal and said second row select signal to determine which input should be used as a first conditioned select signal and a second conditioned select signal (see col. 4 line 56 to col. 5 line 14 and col. 12 lines 36-56 which recite the combinatorial circuit and the encoded signals being transmitted in each stage corresponding to the selection signal for output from the multiplexer circuit, respectively).

Regarding claim 18:

Crocker discloses the encoded multiplexer (see col. 1 lines 4-6 and col. 5 lines 1-14) comprising: a first input with at least one instance; a second input with at least one instance (see col. 4 lines 56-67 where the recited input data signals IN0 and IN1 read on the first and second inputs); a first row select signal with at least one

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instance; a second raw select signal with at least one instance (see col. 4 lines 56-67 where the recited selection signals read on the first and second raw select signal); and a circuit which combines said first raw select signal and said second raw select signal to determine which input should be used as a first conditioned select signal, a second conditioned select signal (see col. 4 line 56 to col. 5 line 14 and col. 12 lines 36-56 which recite the combinatorial circuit and the encoded signals being transmitted in each stage corresponding to the selection signal for output from the multiplexer circuit, respectively), and a third conditioned select signal (see col. 5 lines 15-28 which recite the 3-input multiplexer operable for outputting an output data signal).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hester et al. disclose multimode data system for transferring control and data information in an I/O subsystem.

Miller et al. disclose input-output pad testing using bi-directional pads.

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Uhler et al. disclose dynamic microbranching with programmable hold on condition, to programmable dynamic microbranching delay minimization.

10. Any response to this nonfinal action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600
only)

Hand-delivered responses should be brought to
Crystal Park II, 2121 Crystal Drive, Arlington.
VA., Sixth Floor (2600 Receptionist at (703)
305-4750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



FRANK DUONG
PRIMARY EXAMINER

SH

August 6, 2004